

Query= SEQ ID NO:3
 (10,716 letters)

Sequences producing significant alignments:	Score (bits)	E Value
AL158158.14.1.194835	<u>5531</u>	0.0
AL592463.10.1.96779	<u>1053</u>	0.0
AL354982.12.1.119077	<u>470</u>	e-129

>AL158158.14.1.194835
 Length = 194835

Score = 5531 bits (2790), Expect = 0.0
 Identities = 2793/2794 (99%)
 Strand = Plus / Minus

Query: 6647 agcatacaactggcaggatctttgagagtgaagtgaggtatcagtgtaacccgggctata 6706
 |||
 Sbjct: 173266 agcatacaactggcaggatctttgagagtgaagtgaggtatcagtgtaacccgggctata 173207

Query: 6707 agtcagtcggaagtcctgtatttgtctgccaaagccaatcgccactggcacagtgaatccc 6766
 |||
 Sbjct: 173206 agtcagtcggaagtcctgtatttgtctgccaaagccaatcgccactggcacagtgaatccc 173147

Query: 6767 ctctgatgtgtgttcctctcgactgtggaaaacctccccgatccagaatggcttcatga 6826
 |||
 Sbjct: 173146 ctctgatgtgtgttcctctcgactgtggaaaacctccccgatccagaatggcttcatga 173087

Query: 6827 aaggagaaaactttgaagtaggggtccaagggttcagtttttctgtaatgaggggttatgagc 6886
 |||
 Sbjct: 173086 aaggagaaaactttgaagtaggggtccaagggttcagtttttctgtaatgaggggttatgagc 173027

Query: 6887 ttgttggtgacagttccttgacatgtcagaaatctggcaaataagaagtcaaatac 6946
 |||
 Sbjct: 173026 ttgttggtgacagttccttgacatgtcagaaatctggcaaataagaagtcaaatac 172967

Query: 6947 caaagtgcattgcctgccaaagtgccagagccgccccctcttggaaccagctagtattaa 7006
 |||
 Sbjct: 172966 caaagtgcattgcctgccaaagtgccagagccgccccctcttggaaccagctagtattaa 172907

Query: 7007 aggagttgaccaccgaggtaggagttgtgacattttcctgtaaagaagggtcatgtcctgc 7066
 |||
 Sbjct: 172906 aggagttgaccaccgaggtaggagttgtgacattttcctgtaaagaagggtcatgtcctgc 172847

Query: 7067 aaggccccctctgtcctgaaatgcttgccatcccagcaatggaatgactctttccctgttt 7126
 |||
 Sbjct: 172846 aaggccccctctgtcctgaaatgcttgccatcccagcaatggaatgactctttccctgttt 172787

Query: 7127 gtaagattgttctttgtacccacctcccctaatttcctttggtgtccccattccttctt 7186
|||||
Sbjct: 172786 gtaagattgttctttgtacccacctcccctaatttcctttggtgtccccattccttctt 172727

Query: 7187 ctgctcttcatttttgggaagtactgtcaagtattcttgtgtaggtgggtttttcctaagag 7246
|||||
Sbjct: 172726 ctgctcttcatttttgggaagtactgtcaagtattcttgtgtaggtgggtttttcctaagag 172667

Query: 7247 gaaattctaccaccctctgccaacctgatggcacctggagctctccactgccagaatgtg 7306
|||||
Sbjct: 172666 gaaattctaccaccctctgccaacctgatggcacctggagctctccactgccagaatgtg 172607

Query: 7307 ttccagtagaatgtccccaacctgaggaaatccccaatggaatcattgatgtgcaaggcc 7366
|||||
Sbjct: 172606 ttccagtagaatgtccccaacctgaggaaatccccaatggaatcattgatgtgcaaggcc 172547

Query: 7367 ttgcctatctcagcacagctctctataacctgcaagccaggctttgaattggtgggaaata 7426
|||||
Sbjct: 172546 ttgcctatctcagcacagctctctataacctgcaagccaggctttgaattggtgggaaata 172487

Query: 7427 ctaccaccctttgtggagaaaatggtcactggcttggaggaaaaccaacatgtaaagcca 7486
|||||
Sbjct: 172486 ctaccaccctttgtggagaaaatggtcactggcttggaggaaaaccaacatgtaaagcca 172427

Query: 7487 ttgagtgcctgaaacccaaggagattttgaatggcaaattctcttacacggacctacact 7546
|||||
Sbjct: 172426 ttgagtgcctgaaacccaaggagattttgaatggcaaattctcttacacggacctacact 172367

Query: 7547 atggacagaccgttacctactcttgcaaccgaggctttcggtcgaagggtcccagtgctt 7606
|||||
Sbjct: 172366 atggacagaccgttacctactcttgcaaccgaggctttcggtcgaagggtcccagtgctt 172307

Query: 7607 tgacctgttttagagacaggtgattgggatgtagatgccccatcttgcaatgccatccact 7666
|||||
Sbjct: 172306 tgacctgttttagagacaggtgattgggatgtagatgccccatcttgcaatgccatccact 172247

Query: 7667 gtgattccccacaacccattgaaaatggttttgtagaagggtgcagattacagctatggtg 7726
|||||
Sbjct: 172246 gtgattccccacaacccattgaaaatggttttgtagaagggtgcagattacagctatggtg 172187

Query: 7727 ccataatcatctacagttgcttccctgggtttcagggtggctgggtcatgccatgcagacct 7786
|||||
Sbjct: 172186 ccataatcatctacagttgcttccctgggtttcagggtggctgggtcatgccatgcagacct 172127

Query: 7787 gtgaagagtcaggatggtcaagttccatcccaacatgtatgccaatagactgtggcctcc 7846
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Sbjct: 172126 gtgaagagtcaggatggtcaagttccatcccaacatgtatgccaatagactgtggcctcc 172067

Query: 7847 ctccatcatatagatTTTTGGAGACTGTACTAAACTCAAAGATGACCAGGGATATTTTGAGC 7906
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Sbjct: 172066 ctccatcatatagatTTTTGGAGACTGTACTAAACTCAAAGATGACCAGGGATATTTTGAGC 172007

Query: 7907 aagaagacgacatgatggaagttccatatgtgactcctcaccctccttatcatttgggag 7966
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Sbjct: 172006 aagaagacgacatgatggaagttccatatgtgactcctcaccctccttatcatttgggag 171947

Query: 7967 cagtggctaaaacctgggaaaatacaaaaggagtctcctgctacacattcatcaaactttc 8026
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Sbjct: 171946 cagtggctaaaacctgggaaaatacaaaaggagtctcctgctacacattcatcaaactttc 171887

Query: 8027 tgtatggtaccatggtttcatacacctgtaatccaggatatgaacttctggggaaccctg 8086
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Sbjct: 171886 tgtatggtaccatggtttcatacacctgtaatccaggatatgaacttctggggaaccctg 171827

Query: 8087 tgctgatctgccaggaagatggaacttggaaatggcagtgaccatcctgcatttcaattg 8146
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Sbjct: 171826 tgctgatctgccaggaagatggaacttggaaatggcagtgaccatcctgcatttcaattg 171767

Query: 8147 aatgtgacttgctactgctcctgaaaatggctTTTTGCGTTTTACAGAGACTAGCATGG 8206
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Sbjct: 171766 aatgtgacttgctactgctcctgaaaatggctTTTTGCGTTTTACAGAGACTAGCATGG 171707

Query: 8207 gaagtgctgtgcagtatagctgtaaacctggacacattctagcaggctctgacttaaggc 8266
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Sbjct: 171706 gaagtgctgtgcagtatagctgtaaacctggacacattctagcaggctctgacttaaggc 171647

Query: 8267 tttgtctagagaatagaaagtggagtggcctccccacgctgtgaagccatttcatgca 8326
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Sbjct: 171646 tttgtctagagaatagaaagtggagtggcctccccacgctgtgaagccatttcatgca 171587

Query: 8327 aaaagccaaatccagtcatgaatggatccatcaaaggaagcaactacacatacctgagca 8386
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Sbjct: 171586 aaaagccaaatccagtcatgaatggatccatcaaaggaagcaactacacatacctgagca 171527

Query: 8387 cgTTGTactatgagTGTgacCCCGgatatGTgctgaatggcactgagaggagaacatgcc 8446
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Sbjct: 171526 cgTTGTactatgagTGTgacCCCGgatatGTgctgaatggcactgagaggagaacatgcc 171467

Query: 8447 aggatgacaaaaactgggatgaggatgagcccatttgcattcctgtggactgcagttcac 8506
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Sbjct: 171466 aggatgacaaaaactgggatgaggatgagcccatttgcattcctgtggactgcagttcac 171407

Query: 8507 cccagtcctcagccaatggccaggtgagaggagacgagtacacattccaaaaagagattg 8566
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Sbjct: 171406 cccagtcctcagccaatggccaggtgagaggagacgagtacacattccaaaaagagattg 171347

Query: 8567 aatacacttgcaatgaagggttcttgcttgagggagccaggagtcgggtttgtcttgcca 8626
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Sbjct: 171346 aatacacttgcaatgaagggttcttgcttgagggagccaggagtcgggtttgtcttgcca 171287

Query: 8627 atggaagttggagtgaggccactcccgactgtgtgcctgtcagatgtgccaccccgccac 8686
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Sbjct: 171286 atggaagttggagtgaggccactcccgactgtgtgcctgtcagatgtgccaccccgccac 171227

Query: 8687 aactggccaatggggtgacggaaggcctggactatggcttcatgaaggaagtaacattcc 8746
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Sbjct: 171226 aactggccaatggggtgacggaaggcctggactatggcttcatgaaggaagtaacattcc 171167

Query: 8747 actgtcatgagggctacatcttgacgggtgctccaaaactcacctgtcagtcagatggca 8806
 ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||
 Sbjct: 171166 actgtcacgagggctacatcttgacgggtgctccaaaactcacctgtcagtcagatggca 171107

Query: 8807 actgggatgcagagattcctctctgtaaaccagtcaactgtggacctcctgaagatcttg 8866
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Sbjct: 171106 actgggatgcagagattcctctctgtaaaccagtcaactgtggacctcctgaagatcttg 171047

Query: 8867 cccatgggtttccctaataagggttttctttattcatgggggcatatacagtatcagtgt 8926
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Sbjct: 171046 cccatgggtttccctaataagggttttctttattcatgggggcatatacagtatcagtgt 170987

Query: 8927 ttcttggttataagctccatggaaattcatcaagaaggtgcctctccaatggctcctgga 8986
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Sbjct: 170986 ttcttggttataagctccatggaaattcatcaagaaggtgcctctccaatggctcctgga 170927

Query: 8987 gtggcagctcaccttctgcctgccttgagatgttccacaccagtaattgaatatggaa 9046
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Sbjct: 170926 gtggcagctcaccttctgcctgccttgagatgttccacaccagtaattgaatatggaa 170867

Query: 9047 ctgtcaatgggacagattttgactgtggaaaggcagcccgattcagtgcttcaaaggct 9106
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Sbjct: 170866 ctgtcaatgggacagattttgactgtggaaaggcagcccgattcagtgcttcaaaggct 170807

Query: 9107 tcaagctcctaggacttttctgaaatcacctgtgaagccgatggccagtggagctctgggt 9166
|||||
Sbjct: 170806 tcaagctcctaggacttttctgaaatcacctgtgaagccgatggccagtggagctctgggt 170747

Query: 9167 tccccactgtgaacacacttcttgtggttctcttccaatgataccaaatgcgttcatca 9226
|||||
Sbjct: 170746 tccccactgtgaacacacttcttgtggttctcttccaatgataccaaatgcgttcatca 170687

Query: 9227 gtgagaccagctcttggaggaaaatgtgataacttacagctgcaggtctggatatgtca 9286
|||||
Sbjct: 170686 gtgagaccagctcttggaggaaaatgtgataacttacagctgcaggtctggatatgtca 170627

Query: 9287 tacaaggcagttcagatctgatttgtacagagaaaggggtatggagccagccttatccag 9346
|||||
Sbjct: 170626 tacaaggcagttcagatctgatttgtacagagaaaggggtatggagccagccttatccag 170567

Query: 9347 tctgtgagcccttgtcctgtgggtccccaccgtctgtcgccaatgcagtggaactggag 9406
|||||
Sbjct: 170566 tctgtgagcccttgtcctgtgggtccccaccgtctgtcgccaatgcagtggaactggag 170507

Query: 9407 aggcacacacctatgaaagtgaagtgaactcag 9440
|||||
Sbjct: 170506 aggcacacacctatgaaagtgaagtgaactcag 170473

Score = 1336 bits (674), Expect = 0.0
Identities = 674/674 (100%)
Strand = Plus / Minus

Query: 5975 gctatactcttgctggtcttgacaccattgaatgcctggccgacggcaagtggagtagaa 6034
|||||
Sbjct: 176049 gctatactcttgctggtcttgacaccattgaatgcctggccgacggcaagtggagtagaa 175990

Query: 6035 gtgaccagcagtgccctggctgtctcctgtgatgagccacccattgtggaccacgcctctc 6094
|||||
Sbjct: 175989 gtgaccagcagtgccctggctgtctcctgtgatgagccacccattgtggaccacgcctctc 175930

Query: 6095 cagagactgcccacggctcttggagacattgcattctactactgctctgatggttaca 6154
|||||
Sbjct: 175929 cagagactgcccacggctcttggagacattgcattctactactgctctgatggttaca 175870

Query: 6155 gcctagcagacaattcccagcttctctgcaatgccagggaagtgggtacccccagaag 6214
|||||
Sbjct: 175869 gcctagcagacaattcccagcttctctgcaatgccagggaagtgggtacccccagaag 175810

Query: 6215 gtcaagacatgccccgttgatatagctcatttctgtgaaaaacctccatcggtttcctata 6274
 |||
 Sbjct: 175809 gtcaagacatgccccgttgatatagctcatttctgtgaaaaacctccatcggtttcctata 175750

Query: 6275 gcatcttggaatctgtgagcaaagcaaaatttgagctggctcagttgtgagctttaaat 6334
 |||
 Sbjct: 175749 gcatcttggaatctgtgagcaaagcaaaatttgagctggctcagttgtgagctttaaat 175690

Query: 6335 gcatggaaggctttgtactgaacacctcagcaaagattgaatgtatgagaggtgggcagt 6394
 |||
 Sbjct: 175689 gcatggaaggctttgtactgaacacctcagcaaagattgaatgtatgagaggtgggcagt 175630

Query: 6395 ggaacccttcccccatgtccatccagtgcacccctgtgcggtgtggagagccaccaagca 6454
 |||
 Sbjct: 175629 ggaacccttcccccatgtccatccagtgcacccctgtgcggtgtggagagccaccaagca 175570

Query: 6455 tcatgaatggctatgcaagtggatcaaactacagttttggagccatggtggcttacagct 6514
 |||
 Sbjct: 175569 tcatgaatggctatgcaagtggatcaaactacagttttggagccatggtggcttacagct 175510

Query: 6515 gcaacaaggggttctacatcaaaggggaaaagaagagcacctgcgaagccacagggcagt 6574
 |||
 Sbjct: 175509 gcaacaaggggttctacatcaaaggggaaaagaagagcacctgcgaagccacagggcagt 175450

Query: 6575 ggagtagtcctataaccgacgtgccacccggtatcttgtggtgaaccacctaaggttgaga 6634
 |||
 Sbjct: 175449 ggagtagtcctataaccgacgtgccacccggtatcttgtggtgaaccacctaaggttgaga 175390

Query: 6635 atggctttctggag 6648
 |||
 Sbjct: 175389 atggctttctggag 175376

Score = 446 bits (225), Expect = e-121
 Identities = 228/229 (99%)
 Strand = Plus / Minus

Query: 9438 cagatgtctggaaggttatatcgatggatacagatacagatacattcacctgtcagaaaga 9497
 |||
 Sbjct: 168868 cagatgtctggaaggttatatcgatggatacagatacagatacattcacctgtcagaaaga 168809

Query: 9498 tggtcgctgggttcctgagagaatctcctgcagtcctaaaaaatgtcctctcccgaaaa 9557
 |||
 Sbjct: 168808 tggtcgctgggttcctgagagaatctcctgcagtcctaaaaaatgtcctctcccgaaaa 168749

Query: 9558 cataacacatatatacttgttcatggggacgatttcagtgatgaataggcaagtttctgtgtc 9617
|||||
Sbjct: 168748 cataacacatatatacttgtacatggggacgatttcagtgatgaataggcaagtttctgtgtc 168689

Query: 9618 atgtgcagaaggggtatacctttgagggagttaacatatcagtatgtcag 9666
|||||
Sbjct: 168688 atgtgcagaaggggtatacctttgagggagttaacatatcagtatgtcag 168640

Score = 387 bits (195), Expect = e-103
Identities = 195/195 (100%)
Strand = Plus / Minus

Query: 5613 taggtgtaataaaggatatactctggccggtgataaagaatcatcctgtcttgctaacag 5672
|||||
Sbjct: 193649 taggtgtaataaaggatatactctggccggtgataaagaatcatcctgtcttgctaacag 193590

Query: 5673 ttcttgaggtcattcccctcctgtgtgtgaaccagtgaagtgttctagtccggaaaatat 5732
|||||
Sbjct: 193589 ttcttgaggtcattcccctcctgtgtgtgaaccagtgaagtgttctagtccggaaaatat 193530

Query: 5733 aaataatggaaaatatattttgagtgggcttacctacctttctactgcatcatattcatg 5792
|||||
Sbjct: 193529 aaataatggaaaatatattttgagtgggcttacctacctttctactgcatcatattcatg 193470

Query: 5793 cgatacaggatacag 5807
|||||
Sbjct: 193469 cgatacaggatacag 193455

Score = 355 bits (179), Expect = 4e-94
Identities = 179/179 (100%)
Strand = Plus / Minus

Query: 5352 agaacctataaaatgtaaggctccaggaaatccggaaaatggccactcctcaggtgagat 5411
|||||
Sbjct: 194762 agaacctataaaatgtaaggctccaggaaatccggaaaatggccactcctcaggtgagat 194703

Query: 5412 ttatacagtaggtgccgcagtcacattttcgtgtcaggaaggataaccagttgatgggagt 5471
|||||
Sbjct: 194702 ttatacagtaggtgccgcagtcacattttcgtgtcaggaaggataaccagttgatgggagt 194643

Query: 5472 aacaaaaatcacatgtttggagtcctggagaatggaatcatctaataccatattgtaaag 5530
|||||
Sbjct: 194642 aacaaaaatcacatgtttggagtcctggagaatggaatcatctaataccatattgtaaag 194584

Score = 351 bits (177), Expect = 6e-93
Identities = 177/177 (100%)
Strand = Plus / Minus

Query: 10061 caaatccatgccctgttccttttgtagtccccgagaatgctctgctgtctgaaaaggagt 10120
|||||
Sbjct: 150387 caaatccatgccctgttccttttgtagtccccgagaatgctctgctgtctgaaaaggagt 150328

Query: 10121 tttatgttgatcagaatgtgtccatcaaagttagggaagggttttctgctgcagggccacg 10180
|||||
Sbjct: 150327 tttatgttgatcagaatgtgtccatcaaagttagggaagggttttctgctgcagggccacg 150268

Query: 10181 gcatcattacctgcaaccccgacgagacgtggacacagacaagcgccaaatgtgaaa 10237
|||||
Sbjct: 150267 gcatcattacctgcaaccccgacgagacgtggacacagacaagcgccaaatgtgaaa 150211

Score = 349 bits (176), Expect = 2e-92
Identities = 176/176 (100%)
Strand = Plus / Minus

Query: 9885 agagaccaggtgtgaaactccacttgaatttctcaatgggaaagctgacattgaaaacag 9944
|||||
Sbjct: 151773 agagaccaggtgtgaaactccacttgaatttctcaatgggaaagctgacattgaaaacag 151714

Query: 9945 gacgactggacccaacgtggtatattcctgcaacagaggctacagtcttgaagggccatc 10004
|||||
Sbjct: 151713 gacgactggacccaacgtggtatattcctgcaacagaggctacagtcttgaagggccatc 151654

Query: 10005 tgaggcacactgcacagaaaatggaacctggagccaccagtccttctctgcaaac 10060
|||||
Sbjct: 151653 tgaggcacactgcacagaaaatggaacctggagccaccagtccttctctgcaaac 151598

Score = 339 bits (171), Expect = 2e-89
Identities = 171/171 (100%)
Strand = Plus / Minus

Query: 5805 cagcttacagggcccttccattattgaatgcacggcttctggcatctgggacagagcgcc 5864
|||||
Sbjct: 192074 cagcttacagggcccttccattattgaatgcacggcttctggcatctgggacagagcgcc 192015

Query: 5865 acctgcctgtcacctcgtcttctgtggagaaccacctgccatcaaagatgctgtcattac 5924
|||||
Sbjct: 192014 acctgcctgtcacctcgtcttctgtggagaaccacctgccatcaaagatgctgtcattac 191955

Query: 5925 ggggaataacttcactttcaggaacaccgctcatttacattgcaaagaagg 5975

Score = 339 bits (171), Expect = 2e-89
Identities = 171/171 (100%)
Strand = Plus / Minus

Query: 10238 aaatctcatgtgggtccaccagctcacgtagaaaatgcaattgctcgaggcgtagattatc 10297
 |||
 Sbjct: 143830 aaatctcatgtgggtccaccagctcacgtagaaaatgcaattgctcgaggcgtagattatc 143771

Query: 10298 aatatggagacatgatcacctactcatgttacagtggatacatgttggagggtttcctga 10357
 |||
 Sbjct: 143770 aatatggagacatgatcacctactcatgttacagtggatacatgttggagggtttcctga 143711

```
Query: 10358  ggagtgtttgtttagaaaatggaacatggacatcacctcctatttgcagag 10408
              |||
Sbjct: 143710 ggagtgtttgtttagaaaatggaacatggacatcacctcctatttgcagag 14366
```

Score = 315 bits (159), Expect = 3e-82
Identities = 159/159 (100%)
Strand = Plus / Minus

Query: 9665 agcttgatggaacctgggagccaccattctccgatgaatcttcgagtcacagtttcttggtg 9724
 |||||||
 Sbjct: 165324 agcttgatggaacctgggagccaccattctccgatgaatcttcgagtcacagtttcttggtg 165265

Query: 9725 ggaaacctgaaagtccagaacatggatttgtggttggcagtaaatacacctttgaaagca 9784
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Sbjct: 165264 ggaaacctgaaagtccagaacatggatttgtggttggcagtaaatacacctttgaaagca 165205

Query: 9785 caattatztatcagtgtagcctggctatgaactagagg 9823
 |||||
 Sbjct: 165204 caattatztatcagtgtagcctggctatgaactagagg 165166

Score = 194 bits (98), Expect = 8e-46
Identities = 98/98 (100%)
Strand = Plus / Minus

Query: 10407 agctgtctgtcgatttccatgtcagaatgggggcacatctgccaacgccccaaatgcttgctc 10466
 |||||
 Sbjct: 141681 agctgtctgtcgatttccatgtcagaatgggggcacatctgccaacgccccaaatgcttgctc 141622

Query: 10467 ctgtccagagggctggatggggcgctctgtgaagaac 10504
|||||
Sbjct: 141621 ctgtccagagggctggatggggcgctctgtgaagaac 141584

Score = 194 bits (98), Expect = 8e-46
Identities = 98/98 (100%)
Strand = Plus / Minus

Query: 10598 cagctgtttgccagtctccctgcttaaagtgggaaaatgtgtaagaccaaaccgatgtc 10657
|||||
Sbjct: 134332 cagctgtttgccagtctccctgcttaaagtgggaaaatgtgtaagaccaaaccgatgtc 134273

Query: 10658 actgtctttcttcttgacgggacataactgttccagg 10695
|||||
Sbjct: 134272 actgtctttcttcttgacgggacataactgttccagg 134235

Score = 190 bits (96), Expect = 1e-44
Identities = 96/96 (100%)
Strand = Plus / Minus

Query: 10505 caatctgcattcttccctgtctgaacggaggtcgctgtgtggccccttaccagtgtgact 10564
|||||
Sbjct: 139776 caatctgcattcttccctgtctgaacggaggtcgctgtgtgtggccccttaccagtgtgact 139717

Query: 10565 gcccgctggctggacggggtctcgctgtcatacag 10600
|||||
Sbjct: 139716 gcccgctggctggacggggtctcgctgtcatacag 139681

Score = 180 bits (91), Expect = 1e-41
Identities = 94/95 (98%)
Strand = Plus / Minus

Query: 5523 ttgtaaagctgtttcatgtggttaaaccggctattccagaaaatggttgcataggaggt 5582
|||||
Sbjct: 194323 ttgttaaagctgtttcatgtggttaaaccggctattccagaaaatggttgcataggaggt 194264

Query: 5583 agcatttacttttggcagcaaagtgcataataggt 5617
|||||
Sbjct: 194263 agcatttacttttggcagcaaagtgcataataggt 194229

Score = 131 bits (66), Expect = 1e-26
Identities = 66/66 (100%)
Strand = Plus / Minus

Query: 9821 aggggaacaggggaacgtgtctgccaggagaaacagacagtggagtggaggggtggcaatat 9880
|||||
Sbjct: 153902 aggggaacaggggaacgtgtctgccaggagaaacagacagtggagtggaggggtggcaatat 153843

Query: 9881 gcaaag 9886
|||||
Sbjct: 153842 gcaaag 153837

Score = 56.0 bits (28), Expect = 5e-04
Identities = 28/28 (100%)
Strand = Plus / Minus

Query: 10689 ttccaggaaaaggaggactgggttttaa 10716
|||||
Sbjct: 130879 ttccaggaaaaggaggactgggttttaa 130852

>AL592463.10.1.96779
Length = 96779

Score = 1053 bits (531), Expect = 0.0
Identities = 531/531 (100%)
Strand = Plus / Minus

Query: 1 atgtggcctcgccctggccttttgttgctggggctctggcgctcgtttcgggctgggcgacc 60
|||||
Sbjct: 33941 atgtggcctcgccctggccttttgttgctggggctctggcgctcgtttcgggctgggcgacc 33882

Query: 61 tttcagcagatgtccccgtcgcgcaatttcagcttccgcctcttccccgagaccgcgccc 120
|||||
Sbjct: 33881 tttcagcagatgtccccgtcgcgcaatttcagcttccgcctcttccccgagaccgcgccc 33822

Query: 121 ggggcccccgaggagtatccccgcgccgccgctcctggcgacgaagcggcgaggagcaga 180
|||||
Sbjct: 33821 ggggcccccgaggagtatccccgcgccgccgctcctggcgacgaagcggcgaggagcaga 33762

Query: 181 gtggagcggctgggcccaggcggttccggcgacgcgtgcggctgctgcgggagctcagcgag 240
|||||
Sbjct: 33761 gtggagcggctgggcccaggcggttccggcgacgcgtgcggctgctgcgggagctcagcgag 33702

Query: 241 cgcctggagcttgtcttcctggtggatgattcgtccagcgtgggcgaagtcaacttccgc 300
|||
Sbjct: 33701 cgcctggagcttgtcttcctggtggatgattcgtccagcgtgggcgaagtcaacttccgc 33642

Query: 301 agcgagctcatgttcgtccgcaagctgctgtccgacttccccgtggtgcccacggccacg 360
|||
Sbjct: 33641 agcgagctcatgttcgtccgcaagctgctgtccgacttccccgtggtgcccacggccacg 33582

Query: 361 cgcgtggccatcgtgaccttctcgtccaagaactacgtggtgccgcgctcgattacatc 420
|||
Sbjct: 33581 cgcgtggccatcgtgaccttctcgtccaagaactacgtggtgccgcgctcgattacatc 33522

Query: 421 tccacccgccgcgcgcgccagcacaagtgcgcgctgctcctccaagagatccctgccatc 480
|||
Sbjct: 33521 tccacccgccgcgcgcgccagcacaagtgcgcgctgctcctccaagagatccctgccatc 33462

Query: 481 tcctaccgaggtggcggcacctacaccaagggcgcttccagcaagccgcg 531
|||
Sbjct: 33461 tcctaccgaggtggcggcacctacaccaagggcgcttccagcaagccgcg 33411

Score = 509 bits (257), Expect = e-140
Identities = 257/257 (100%)
Strand = Plus / Minus

Query: 531 gcaaattcttcttcatgctagagaaaactcaacaaaagttgtatttctcatcactgatgg 590
|||
Sbjct: 4503 gcaaattcttcttcatgctagagaaaactcaacaaaagttgtatttctcatcactgatgg 4444

Query: 591 atattccaatgggggagaccctagaccaattgcagcgtcactgcgagattcaggagtggg 650
|||
Sbjct: 4443 atattccaatgggggagaccctagaccaattgcagcgtcactgcgagattcaggagtggg 4384

Query: 651 gatcttcacttttggcatatggcaaggggaacattcgagagctgaatgacatggcttccac 710
|||
Sbjct: 4383 gatcttcacttttggcatatggcaaggggaacattcgagagctgaatgacatggcttccac 4324

Query: 711 cccaaaggaggagcactgttacctgctacacagttttgaagaatttgaggcttttagctcg 770
|||
Sbjct: 4323 cccaaaggaggagcactgttacctgctacacagttttgaagaatttgaggcttttagctcg 4264

Query: 771 ccgggcattgcatgaag 787
|||
Sbjct: 4263 ccgggcattgcatgaag 4247

Score = 355 bits (179), Expect = 4e-94
Identities = 179/179 (100%)
Strand = Plus / Minus

Query: 786 agatctaccttctgggagttttattcaagatgatatgggtccactgctcatatctttgtga 845
|||||

Sbjct: 691 agatctaccttctgggagttttattcaagatgatatgggtccactgctcatatctttgtga 632

Query: 846 tgaaggcaaggactgctgtgaccgaatgggaagctgcaaatgtgggacacacacaggcca 905
|||||

Sbjct: 631 tgaaggcaaggactgctgtgaccgaatgggaagctgcaaatgtgggacacacacaggcca 572

Query: 906 ttttgagtgcattctgtgaaaaggggtattacgggaaaggctctgcagtatgaatgcacag 964
|||||

Sbjct: 571 ttttgagtgcattctgtgaaaaggggtattacgggaaaggctctgcagtatgaatgcacag 513

>AL354982.12.1.119077
Length = 119077

Score = 470 bits (237), Expect = e-129
Identities = 237/237 (100%)
Strand = Plus / Minus

Query: 2762 cagctagtgtgccattacccgatgaaagaaatgatacccttgaatgggaaaatcagcaac 2821
|||||

Sbjct: 43075 cagctagtgtgccattacccgatgaaagaaatgatacccttgaatgggaaaatcagcaac 43016

Query: 2822 gactccttcagacattggaaactatcacaaataaactgaaaaggactctcaacaaagacc 2881
|||||

Sbjct: 43015 gactccttcagacattggaaactatcacaaataaactgaaaaggactctcaacaaagacc 42956

Query: 2882 ccatgtattcctttcagcttgcattcagaaatacttatagccgacagcaattcattagaaa 2941
|||||

Sbjct: 42955 ccatgtattcctttcagcttgcattcagaaatacttatagccgacagcaattcattagaaa 42896

Query: 2942 caaaaaaggcttcccccttctgcagaccagggtcagtgctgagagggcgatgtgtg 2998
|||||

Sbjct: 42895 caaaaaaggcttcccccttctgcagaccagggtcagtgctgagagggcgatgtgtg 42839

Score = 406 bits (205), Expect = e-109
Identities = 205/205 (100%)
Strand = Plus / Minus

Query: 4259 cagaacagtctacaggctttaacctggatTTTgaagTTTctggcatctatggatatgtca 4318
|||||

Sbjct: 17516 cagaacagtctacaggctttaacctggatTTTgaagTTTctggcatctatggatatgtca 17457

Query: 4319 tgctagatggcatgctcccatctctccatgctctaacctgtacCTTctggatgaaatcct 4378
|||||

Sbjct: 17456 tgctagatggcatgctcccatctctccatgctctaacctgtacCTTctggatgaaatcct 17397

Query: 4379 ctgacgacatgaactatggaacaccaatctcctatgcagTTgataacggcagcgacaata 4438
|||||

Sbjct: 17396 ctgacgacatgaactatggaacaccaatctcctatgcagTTgataacggcagcgacaata 17337

Query: 4439 ccttgctcctgactgattataacgg 4463
|||||

Sbjct: 17336 ccttgctcctgactgattataacgg 17312

Score = 404 bits (204), Expect = e-109
Identities = 204/204 (100%)
Strand = Plus / Minus

Query: 3900 aggcctgcattgtgaaacagaagtcaatgaatgccagtcaaaccctgcttaaataatgc 3959
|||||

Sbjct: 21737 aggcctgcattgtgaaacagaagtcaatgaatgccagtcaaaccctgcttaaataatgc 21678

Query: 3960 agtctgtgaagaccaggttgggggattcttgtgcaaatagccacctggattTTTgggtac 4019
|||||

Sbjct: 21677 agtctgtgaagaccaggttgggggattcttgtgcaaatagccacctggattTTTgggtac 21618

Query: 4020 ccgatgtggaaagaacgtcgatgagtgctcagtcagccatgcaaaaatggagctacctg 4079
|||||

Sbjct: 21617 ccgatgtggaaagaacgtcgatgagtgctcagtcagccatgcaaaaatggagctacctg 21558

Query: 4080 taaagacggtgccaatagcttcag 4103
|||||

Sbjct: 21557 taaagacggtgccaatagcttcag 21534

Score = 394 bits (199), Expect = e-106
Identities = 199/199 (100%)
Strand = Plus / Minus

Query: 1483 gagcgccactgttccacctttcagatgccc aaagatgtcatcatatccccccacaactgt 1542
|||||

Sbjct: 70714 gagcgccactgttccacctttcagatgccc aaagatgtcatcatatccccccacaactgt 70655

Query: 1543 ggcaagcagccagccaaatttgggacgatctgctatgtaagttgccgccaagggttcatt 1602
|||||

Sbjct: 70654 ggcaagcagccagccaaatttgggacgatctgctatgtaagttgccgccaagggttcatt 70595

Query: 1603 ttatctggagtgcaaagaaatgctgagatgtaccacttctggaaaatggaatgtcggagtt 1662
|||||

Sbjct: 70594 ttatctggagtgcaaagaaatgctgagatgtaccacttctggaaaatggaatgtcggagtt 70535

Query: 1663 caggcagctgtgtgttaaag 1681
|||||

Sbjct: 70534 caggcagctgtgtgttaaag 70516

Score = 391 bits (197), Expect = e-105
Identities = 197/197 (100%)
Strand = Plus / Minus

Query: 2169 aggttctccctgtgaaattccattcacacctgtaaatggggattttatatgcactccaga 2228
|||||

Sbjct: 52913 aggttctccctgtgaaattccattcacacctgtaaatggggattttatatgcactccaga 52854

Query: 2229 taatactggagtgcaactgtacattaacttgcttggagggctatgatttcacagaagggtc 2288
|||||

Sbjct: 52853 taatactggagtgcaactgtacattaacttgcttggagggctatgatttcacagaagggtc 52794

Query: 2289 tactgacaagtattattgtgcttatgaagatggcgtctggaaaccaacatataccactga 2348
|||||

Sbjct: 52793 tactgacaagtattattgtgcttatgaagatggcgtctggaaaccaacatataccactga 52734

Query: 2349 atggccagactgtgcca 2365
|||||

Sbjct: 52733 atggccagactgtgcca 52717

Score = 387 bits (195), Expect = e-103
Identities = 195/195 (100%)
Strand = Plus / Minus

Query: 5613 taggtgtaataaaaggatataactctggccggtgataaagaatcatcctgtcttgctaacag 5672
|||||

Sbjct: 812 taggtgtaataaaaggatataactctggccggtgataaagaatcatcctgtcttgctaacag 753

Query: 5673 ttcttgagtcattcccctcctgtgtgtgaaccagtgaagtgttctagtccggaaaatat 5732
|||||

Sbjct: 752 ttcttgagtcattcccctcctgtgtgtgaaccagtgaagtgttctagtccggaaaatat 693

Query: 5733 aaataatggaaaatatattttgagtgggcttacctacctttctactgcatcatattcatg 5792
|||||

Sbjct: 692 aaataatggaaaatatattttgagtgggcttacctacctttctactgcatcatattcatg 633

Query: 5793 cgatacaggatacag 5807
|||||

Sbjct: 632 cgatacaggatacag 618

Score = 361 bits (182), Expect = 6e-96
Identities = 182/182 (100%)
Strand = Plus / Minus

Query: 1302 agtaagaacatgtcctcatctccgccagccgaaacatggccacatcagctgttctacaag 1361
|||||

Sbjct: 74694 agtaagaacatgtcctcatctccgccagccgaaacatggccacatcagctgttctacaag 74635

Query: 1362 ggaaatggtatataagacaacatgtttggttgctgtgatgaagggtagagactagaagg 1421
|||||

Sbjct: 74634 ggaaatggtatataagacaacatgtttggttgctgtgatgaagggtagagactagaagg 74575

Query: 1422 cagtgataagcttacttgtcaaggaaacagccagtgaggatgggcccagaacccccggtgtgt 1481
|||||

Sbjct: 74574 cagtgataagcttacttgtcaaggaaacagccagtgaggatgggcccagaacccccggtgtgt 74515

Query: 1482 gg 1483
||

Sbjct: 74514 gg 74513

Score = 357 bits (180), Expect = 9e-95
Identities = 180/180 (100%)
Strand = Plus / Minus

Query: 1124 ttgtccactgccctgccctgaagcctcccgaaaatgggtactttatccaaaacacttgca 1183
|||||
Sbjct: 84580 ttgtccactgccctgccctgaagcctcccgaaaatgggtactttatccaaaacacttgca 84521

Query: 1184 acaaccacttcaatgcagcctgtgggggccgatgtcacccctggatttgatcttgtgggaa 1243
|||||
Sbjct: 84520 acaaccacttcaatgcagcctgtgggggccgatgtcacccctggatttgatcttgtgggaa 84461

Query: 1244 gcagcatcatcttatgtctacccaatggtttgtgggtccgggttcagagagctactgcagag 1303
|||||
Sbjct: 84460 gcagcatcatcttatgtctacccaatggtttgtgggtccgggttcagagagctactgcagag 84401

Score = 355 bits (179), Expect = 4e-94
Identities = 179/179 (100%)
Strand = Plus / Minus

Query: 786 agatctaccttctgggagttttattcaagatgatatgggtccactgctcatatctttgtga 845
|||||
Sbjct: 117768 agatctaccttctgggagttttattcaagatgatatgggtccactgctcatatctttgtga 117709

Query: 846 tgaaggcaaggactgctgtgaccgaatgggaagctgcaaagtgtgggacacacacaggcca 905
|||||
Sbjct: 117708 tgaaggcaaggactgctgtgaccgaatgggaagctgcaaagtgtgggacacacacaggcca 117649

Query: 906 ttttgagtgcacatctgtgaaaaggggtattacgggaaaggctcgcagtatgaatgcacag 964
|||||
Sbjct: 117648 ttttgagtgcacatctgtgaaaaggggtattacgggaaaggctcgcagtatgaatgcacag 117590

Score = 355 bits (179), Expect = 4e-94
Identities = 179/179 (100%)
Strand = Plus / Minus

Query: 4463 gctgggttctttatgtgaatggcagggaaaagataacaaactgtccctcggtgaatgatg 4522
|||||
Sbjct: 15196 gctgggttctttatgtgaatggcagggaaaagataacaaactgtccctcggtgaatgatg 15137

Query: 4523 gcagatggcatcatattgcaatcacttggaacaagtgccaatggcatctggaaagtctata 4582
|||||
Sbjct: 15136 gcagatggcatcatattgcaatcacttggaacaagtgccaatggcatctggaaagtctata 15077

Query: 4583 tcgatgggaaattatctgacggtggtgctggcctctctggttggtttgccatacctggt 4641
|||||
Sbjct: 15076 tcgatgggaaattatctgacggtggtgctggcctctctggttggtttgccatacctggt 15018

Score = 347 bits (175), Expect = 9e-92
Identities = 178/179 (99%)
Strand = Plus / Minus

Query: 5352 agaacctataaaatgtaaggctccaggaaatccggaaaatggccactcctcaggtgagat 5411
|||||
Sbjct: 1927 agaacctataaaatgtaaggctccaggaaatccggaaaatggccactcctcaggtgagat 1868

Query: 5412 ttatacagtaggtgccgcagtcacattttcgtgtcaggaaggataccagttgatgggagt 5471
|||||
Sbjct: 1867 ttatacagtaggtgccgaagtcacattttcgtgtcaggaaggataccagttgatgggagt 1808

Query: 5472 aacaaaaatcacatgtttggagtctggagaatggaatcatctaataccatattgtaaag 5530
|||||
Sbjct: 1807 aacaaaaatcacatgtttggagtctggagaatggaatcatctaataccatattgtaaag 1749

Score = 345 bits (174), Expect = 4e-91
Identities = 174/174 (100%)
Strand = Plus / Minus

Query: 5060 gcattagctgtggggtgccacctcctttggagaatggcttccattcagccgatgacttct 5119
|||||
Sbjct: 4110 gcattagctgtggggtgccacctcctttggagaatggcttccattcagccgatgacttct 4051

Query: 5120 atgctggcagcacagtaacctaccagtgcacaatggctactatctattgggtgactcaa 5179
|||||
Sbjct: 4050 atgctggcagcacagtaacctaccagtgcacaatggctactatctattgggtgactcaa 3991

Query: 5180 ggatgttctgtacagataatgggagctggaacggcggtttcaccatcctgccttg 5233
|||||
Sbjct: 3990 ggatgttctgtacagataatgggagctggaacggcggtttcaccatcctgccttg 3937

Score = 343 bits (173), Expect = 1e-90
Identities = 173/173 (100%)
Strand = Plus / Minus

Query: 4888 gattgccacgcttaggaggggtcagtgcctcatctgagaactgcatctgaagatttaaag 4947
|||||
Sbjct: 5982 gattgccacgcttaggaggggtcagtgcctcatctgagaactgcatctgaagatttaaag 5923

Query: 4948 ccagggttccaaagtcaatctgttctgtgatccaggcttccagctggtcgggaaccctgtg 5007
|||||
Sbjct: 5922 ccagggttccaaagtcaatctgttctgtgatccaggcttccagctggtcgggaaccctgtg 5863

Query: 5008 cagtactgtctgaatcaaggacagtggacacaaccacttcctcactgtgaacg 5060
|||||
Sbjct: 5862 cagtactgtctgaatcaaggacagtggacacaaccacttcctcactgtgaacg 5810

Score = 329 bits (166), Expect = 2e-86
Identities = 166/166 (100%)
Strand = Plus / Minus

Query: 2599 ggaccagggtggctgggggtgcagctaataaggctggattactcttacgatgacttcctggac 2658
|||||
Sbjct: 43799 ggaccagggtggctgggggtgcagctaataaggctggattactcttacgatgacttcctggac 43740

Query: 2659 actgtgcaagaaacagccacaagcatcggaatgccaagtcctcacggattaaaagaagt 2718
|||||
Sbjct: 43739 actgtgcaagaaacagccacaagcatcggaatgccaagtcctcacggattaaaagaagt 43680

Query: 2719 gccccattatctgactataaaaattaagttaatttttaacatcacag 2764
|||||
Sbjct: 43679 gccccattatctgactataaaaattaagttaatttttaacatcacag 43634

Score = 329 bits (166), Expect = 2e-86
Identities = 166/166 (100%)
Strand = Plus / Minus

Query: 3321 agttccttgtccagaaggaaaaattctcgcgttctgggttaatgccctgtcacccatgtcc 3380
|||||
Sbjct: 30590 agttccttgtccagaaggaaaaattctcgcgttctgggttaatgccctgtcacccatgtcc 30531

Query: 3381 tcgtgactattaccaacctaatagcagggaaggccttctgcctggcctgtcccttttatgg 3440
|||||
Sbjct: 30530 tcgtgactattaccaacctaatagcagggaaggccttctgcctggcctgtcccttttatgg 30471

Query: 3441 aactacccattcgctgggtccagatccatcacagaatgttcaagt 3486
|||||
Sbjct: 30470 aactacccattcgctgggtccagatccatcacagaatgttcaagt 30425

Score = 325 bits (164), Expect = 3e-85
Identities = 164/164 (100%)
Strand = Plus / Minus

Query: 3159 agctcagtgtaaacaaggcacctactcatcacagtggacttgagacttgtgaatcgtgtcc 3218
|||||

Sbjct: 37503 agctcagtgtaaacaaggcacctactcatcacagtggacttgagacttgtgaatcgtgtcc 37444

Query: 3219 actgggcacttatcagccaaaatttggttcccggagctgcctctcgtgtccagaaaacac 3278
|||||

Sbjct: 37443 actgggcacttatcagccaaaatttggttcccggagctgcctctcgtgtccagaaaacac 37384

Query: 3279 ctcaactgtgaaaagaggagccgtgaacatttctgcatgtggag 3322
|||||

Sbjct: 37383 ctcaactgtgaaaagaggagccgtgaacatttctgcatgtggag 37340

Score = 325 bits (164), Expect = 3e-85
Identities = 164/164 (100%)
Strand = Plus / Minus

Query: 960 cacagcttgcccatcggggacatacaaacctgaaggctcaccaggaggaatcagcagttg 1019
|||||

Sbjct: 85586 cacagcttgcccatcggggacatacaaacctgaaggctcaccaggaggaatcagcagttg 85527

Query: 1020 cattccatgtcctgatgaaaatcacacctctccacctggaagcacatcccctgaagactg 1079
|||||

Sbjct: 85526 cattccatgtcctgatgaaaatcacacctctccacctggaagcacatcccctgaagactg 85467

Query: 1080 tgtctgcagagaggggatacagggcatctggccagacctgtgaac 1123
|||||

Sbjct: 85466 tgtctgcagagaggggatacagggcatctggccagacctgtgaac 85423

Score = 323 bits (163), Expect = 1e-84
Identities = 163/163 (100%)
Strand = Plus / Minus

Query: 2998 gtcaattgccctttgggaacctattataatctggaacatttcacctgtgaaagctgccgg 3057
|||||

Sbjct: 40577 gtcaattgccctttgggaacctattataatctggaacatttcacctgtgaaagctgccgg 40518

Query: 3058 atcggatcctatcaagatgaagaagggcaacttgagtgaagctttgcccctctgggatg 3117
|||||

Sbjct: 40517 atcggatcctatcaagatgaagaagggcaacttgagtgaagctttgcccctctgggatg 40458

Query: 3118 tacacggaatatatccattcaagaaacatctctgattgttaaag 3160
|||||
Sbjct: 40457 tacacggaatatatccattcaagaaacatctctgattgttaaag 40415

Score = 315 bits (159), Expect = 3e-82
Identities = 162/163 (99%)
Strand = Plus / Minus

Query: 4099 ttcagatgcctgtgtgcagctggcttcacaggatcacactgtgaattgaacatcaatgaa 4158
|||||
Sbjct: 18537 ttcagatgcctgtgtgcagctggcttcacaggatcacactgtgaattgaacatcaatgaa 18478

Query: 4159 tgtcagtctaataccatgtagaaatcaggccacctgtgtggatgaattaaattcatacagt 4218
|||||
Sbjct: 18477 tgtcagtctaataccatgtagaaatcaggccacctgtgtggatgaattaaattcatacagt 18418

Query: 4219 tgtaaattgtcagccaggattttcaggccaaagggtgtgaaacag 4261
|||||
Sbjct: 18417 tgtaaattgtcagccaggattttcaggccaaagggtgtgaaacag 18375

Score = 272 bits (137), Expect = 4e-69
Identities = 137/137 (100%)
Strand = Plus / Minus

Query: 2036 caggggctgaattgggtcattaccagaagtcatacacaaggagaccttttccctcaagggg 2095
|||||
Sbjct: 53970 caggggctgaattgggtcattaccagaagtcatacacaaggagaccttttccctcaagggg 53911

Query: 2096 agactatagtacagtatacagccactgacccctcaggcaataacaggacatgtgatatcc 2155
|||||
Sbjct: 53910 agactatagtacagtatacagccactgacccctcaggcaataacaggacatgtgatatcc 53851

Query: 2156 atattgtcataaaaagg 2172
|||||
Sbjct: 53850 atattgtcataaaaagg 53834

Score = 262 bits (132), Expect = 4e-66
Identities = 132/132 (100%)
Strand = Plus / Minus

Query: 1799 aggtgtcagtcacgttcacgttttcacccaccttaccttttcccaattggagatg 1858
|||||
Sbjct: 61256 aggtgtcagtcacgttcacgttttcacccaccttaccttttcccaattggagatg 61197

Query: 1859 ttgctatcgtatacacggcaactgacctatccggcaaccaggccagctgcattttccata 1918
||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 61196 ttgctatcgtatacacggcaactgacctatccggcaaccaggccagctgcattttccata 61137

Query: 1919 tcaaggttattg 1930
|||||||||||
Sbjct: 61136 tcaaggttattg 61125

Score = 254 bits (128), Expect = 1e-63
Identities = 128/128 (100%)
Strand = Plus / Minus

Query: 4639 ggtggtggtgcgttagttctggggcaagagcaagacaaaaaggagagggattcagccca 4698
||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 7980 ggtggtggtgcgttagttctggggcaagagcaagacaaaaaggagagggattcagccca 7921

Query: 4699 gctgagtccttttggtgggctccataagccagctcaacctctgggactatgtcctgtctcca 4758
||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 7920 gctgagtccttttggtgggctccataagccagctcaacctctgggactatgtcctgtctcca 7861

Query: 4759 cagcaggt 4766
|||||||||
Sbjct: 7860 cagcaggt 7853

Score = 252 bits (127), Expect = 4e-63
Identities = 127/127 (100%)
Strand = Plus / Minus

Query: 4762 caggtgaagtcactggctacctcctgcccagaggaactcagtaaaggaaacgtgtagca 4821
||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 6842 caggtgaagtcactggctacctcctgcccagaggaactcagtaaaggaaacgtgtagca 6783

Query: 4822 tggcctgatttcttgctcaggaattgtggggaaagtgaagatcgattctaagagcatattt 4881
||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Sbjct: 6782 tggcctgatttcttgctcaggaattgtggggaaagtgaagatcgattctaagagcatattt 6723

Query: 4882 tgttctg 4888
|||||||
Sbjct: 6722 tgttctg 6716

Score = 246 bits (124), Expect = 2e-61
Identities = 124/124 (100%)
Strand = Plus / Minus

Query: 2366 aaaaacggttttgcaaaccacgggttcaagtcctttgagatggttctacaaagcagctcggt 2425
|||||

Sbjct: 51231 aaaaacggttttgcaaaccacgggttcaagtcctttgagatggttctacaaagcagctcggt 51172

Query: 2426 gtgatgacacagatctgatgaagaagttttctgaagcatttgagacgaccctgggaaaaa 2485
|||||

Sbjct: 51171 gtgatgacacagatctgatgaagaagttttctgaagcatttgagacgaccctgggaaaaa 51112

Query: 2486 tggt 2489
||||

Sbjct: 51111 tggt 51108

Score = 244 bits (123), Expect = 1e-60
Identities = 123/123 (100%)
Strand = Plus / Minus

Query: 1680 agacgtggaggctcctcaaatcaactgtcctaaggacatagaggctaagactctggaaca 1739
|||||

Sbjct: 68410 agacgtggaggctcctcaaatcaactgtcctaaggacatagaggctaagactctggaaca 68351

Query: 1740 gcaagattctgccaatgttacctggcagattccaacagctaaagacaactctggtgaaaa 1799
|||||

Sbjct: 68350 gcaagattctgccaatgttacctggcagattccaacagctaaagacaactctggtgaaaa 68291

Query: 1800 ggt 1802
|||

Sbjct: 68290 ggt 68288

Score = 240 bits (121), Expect = 2e-59
Identities = 121/121 (100%)
Strand = Plus / Minus

Query: 5233 gatgtcgatgagtgtgcagttggatcagattgtagtgagcatgcttcttgctgaacgta 5292
|||||

Sbjct: 3510 gatgtcgatgagtgtgcagttggatcagattgtagtgagcatgcttcttgctgaacgta 3451

Query: 5293 gatggatcctacatatgttcatgtgtcccaccgtacacaggagatgggaaaaaactgtgca 5352
|||||

Sbjct: 3450 gatggatcctacatatgttcatgtgtcccaccgtacacaggagatgggaaaaaactgtgca 3391

Query: 5353 g 5353
|
Sbjct: 3390 g 3390

Score = 234 bits (118), Expect = 9e-58
Identities = 118/118 (100%)
Strand = Plus / Minus

Query: 3672 aggcttaaagtgtgaaacagacatcgatgagtgagcccactgccttgccctcaacaatgg 3731
|||||
Sbjct: 27180 aggcttaaagtgtgaaacagacatcgatgagtgagcccactgccttgccctcaacaatgg 27121

Query: 3732 agtttgtaaagacctagttggggaattcatttgtagtgcccatcagggttacacaggt 3789
|||||
Sbjct: 27120 agtttgtaaagacctagttggggaattcatttgtagtgcccatcagggttacacaggt 27063

Score = 234 bits (118), Expect = 9e-58
Identities = 118/118 (100%)
Strand = Plus / Minus

Query: 3785 caggtcagcgggtgtgaagaaaatataaatgagtgtagctccagtccttgtttaataaaag 3844
|||||
Sbjct: 22880 caggtcagcgggtgtgaagaaaatataaatgagtgtagctccagtccttgtttaataaaag 22821

Query: 3845 gaatctgtgttgatgggtgtggctggctatcggtgcacatgtgtgaaaggatttgtagg 3902
|||||
Sbjct: 22820 gaatctgtgttgatgggtgtggctggctatcggtgcacatgtgtgaaaggatttgtagg 22763

Score = 226 bits (114), Expect = 2e-55
Identities = 114/114 (100%)
Strand = Plus / Minus

Query: 2487 ggtcccatcattttgtagtgatgcagaggacattgactgcagactggaggagaaacctgac 2546
|||||
Sbjct: 47791 ggtcccatcattttgtagtgatgcagaggacattgactgcagactggaggagaaacctgac 47732

Query: 2547 caaaaaatattgcctagaatataattatgactatgaaaatggctttgcaattgg 2600
|||||
Sbjct: 47731 caaaaaatattgcctagaatataattatgactatgaaaatggctttgcaattgg 47678

Score = 218 bits (110), Expect = 6e-53
Identities = 110/110 (100%)
Strand = Plus / Minus

Query: 1930 gatgcagaaccacctgtcatagactgggtgcagatctccacctcccgtccaggtctcggag 1989
|||||
Sbjct: 55169 gatgcagaaccacctgtcatagactgggtgcagatctccacctcccgtccaggtctcggag 55110

Query: 1990 aaggtacatgccgcaagctgggatgagcctcagttctcagacaactcagg 2039
|||||
Sbjct: 55109 aaggtacatgccgcaagctgggatgagcctcagttctcagacaactcagg 55060

Score = 198 bits (100), Expect = 5e-47
Identities = 100/100 (100%)
Strand = Plus / Minus

Query: 3575 aggttttccatgaatgcttctttaacccttgccacaatagtggaaacctgccagcaacttg 3634
|||||
Sbjct: 28829 aggttttccatgaatgcttctttaacccttgccacaatagtggaaacctgccagcaacttg 28770

Query: 3635 ggcgtgggttatgtttgtctctgtccacttgatatacagg 3674
|||||
Sbjct: 28769 ggcgtgggttatgtttgtctctgtccacttgatatacagg 28730

Score = 184 bits (93), Expect = 8e-43
Identities = 93/93 (100%)
Strand = Plus / Minus

Query: 3485 gtttttagttcaactttctcagcggcagaggaaagtgtggtgccccctgcctctcttgag 3544
|||||
Sbjct: 30037 gtttttagttcaactttctcagcggcagaggaaagtgtggtgccccctgcctctcttgag 29978

Query: 3545 atattaaaaagaggcatgaaatcagcagtcagg 3577
|||||
Sbjct: 29977 atattaaaaagaggcatgaaatcagcagtcagg 29945

Score = 180 bits (91), Expect = 1e-41
Identities = 94/95 (98%)
Strand = Plus / Minus

Query: 5523 ttgtaaagctgtttcatgtggttaaaccggctattccagaaaatggttgcataggaggtt 5582
|||||
Sbjct: 1487 ttgttaaagctgtttcatgtggttaaaccggctattccagaaaatggttgcataggaggtt 1428

Query: 5583 agcatttacttttggcagcaaagtgacatataggt 5617
|||||
Sbjct: 1427 agcatttacttttggcagcaaagtgacatataggt 1393

Query= SEQ ID NO:5
(5529 letters)

Sequences producing significant alignments:	Score (bits)	E Value
AL592463.10.1.96779	<u>1053</u>	0.0
AL354982.12.1.119077	<u>470</u>	e-129
AL158158.14.1.194835	<u>347</u>	5e-92

>AL592463.10.1.96779
Length = 96779

Score = 1053 bits (531), Expect = 0.0
Identities = 531/531 (100%)
Strand = Plus / Minus

Query: 1 atgtggcctcgccctggccttttgttgctggggctctggcgctcggtttcgggctgggcgacc 60
|||||
Sbjct: 33941 atgtggcctcgccctggccttttgttgctggggctctggcgctcggtttcgggctgggcgacc 33882

Query: 61 tttcagcagatgtccccgtcgcgcaatttcagcttccgcctcttccccgagaccgcgccc 120
|||||
Sbjct: 33881 tttcagcagatgtccccgtcgcgcaatttcagcttccgcctcttccccgagaccgcgccc 33822

Query: 121 ggggcccccgaggatattccccgcgccgccgctcctggcgacgaagcggcggggagcaga 180
|||||
Sbjct: 33821 ggggcccccgaggatattccccgcgccgccgctcctggcgacgaagcggcggggagcaga 33762

Query: 181 gtggagcggctgggccaggcgttccggcgacgcgtgcggctgctgcgggagctcagcgag 240
|||||
Sbjct: 33761 gtggagcggctgggccaggcgttccggcgacgcgtgcggctgctgcgggagctcagcgag 33702

Query: 241 cgcttgagcttgtcttccctgggtggatgattcgctccagcgtgggcgaagtcaacttccgc 300
|||||
Sbjct: 33701 cgcttgagcttgtcttccctgggtggatgattcgctccagcgtgggcgaagtcaacttccgc 33642

Query: 301 agcgagctcatgttcgtccgcaagctgctgtccgacttccccgtggtgcccacggccacg 360
|||||
Sbjct: 33641 agcgagctcatgttcgtccgcaagctgctgtccgacttccccgtggtgcccacggccacg 33582

Query: 361 cgcgtaggcatcgtagaccttctcggtccaagaactacgtgggtgccgcgctcgattacatc 420
|||||
Sbjct: 33581 cgcgtaggcatcgtagaccttctcggtccaagaactacgtgggtgccgcgctcgattacatc 33522

Query: 421 tccacccgccgcgcgcgcagcacaagtgcgcgctgctcctccaagagatccctgccatc 480
|||||
Sbjct: 33521 tccacccgccgcgcgcgcagcacaagtgcgcgctgctcctccaagagatccctgccatc 33462

Query: 481 tcctaccgaggtggcggcacctacaccaagggcgccctccagcaagccgcg 531
|||||
Sbjct: 33461 tcctaccgaggtggcggcacctacaccaagggcgccctccagcaagccgcg 33411

Score = 509 bits (257), Expect = e-141
Identities = 257/257 (100%)
Strand = Plus / Minus

Query: 531 gcaaattcttcttcatgctagagaaaactcaacaaaagttgtatttctcatcactgatgg 590
|||||
Sbjct: 4503 gcaaattcttcttcatgctagagaaaactcaacaaaagttgtatttctcatcactgatgg 4444

Query: 591 atattccaatgggggagaccctagaccaattgcagcgctcactgcgagattcaggagtggga 650
|||||
Sbjct: 4443 atattccaatgggggagaccctagaccaattgcagcgctcactgcgagattcaggagtggga 4384

Query: 651 gatcttcacttttggcatatggcaagggaacattcgagagctgaatgacatggcttcac 710
|||||
Sbjct: 4383 gatcttcacttttggcatatggcaagggaacattcgagagctgaatgacatggcttcac 4324

Query: 711 cccaaaggaggagcactgttacctgctacacagttttgaagaatttgaggcttttagctcg 770
|||||
Sbjct: 4323 cccaaaggaggagcactgttacctgctacacagttttgaagaatttgaggcttttagctcg 4264

Query: 771 ccgggcattgcatgaag 787
|||||
Sbjct: 4263 ccgggcattgcatgaag 4247

Score = 355 bits (179), Expect = 2e-94
Identities = 179/179 (100%)
Strand = Plus / Minus

Query: 786 agatctaccttctgggagttttattcaagatgatatgggtccactgctcatatctttgtga 845
|||||
Sbjct: 691 agatctaccttctgggagttttattcaagatgatatgggtccactgctcatatctttgtga 632

Query: 846 tgaaggcaaggactgctgtgaccgaatgggaagctgcaaagtgtgggacacacacaggcca 905
|||||
Sbjct: 631 tgaaggcaaggactgctgtgaccgaatgggaagctgcaaagtgtgggacacacacaggcca 572

Query: 906 ttttgagtgcacatctgtgaaaaggggtattacgggaaaggtctgcagtatgaatgcacag 964
|||||
Sbjct: 571 ttttgagtgcacatctgtgaaaaggggtattacgggaaaggtctgcagtatgaatgcacag 513

>AL354982.12.1.119077
Length = 119077

Score = 470 bits (237), Expect = e-129
Identities = 237/237 (100%)
Strand = Plus / Minus

Query: 2762 cagctagtgtgccattacccgatgaaagaaatgatacccttgaatgggaaaatcagcaac 2821
|||||
Sbjct: 43075 cagctagtgtgccattacccgatgaaagaaatgatacccttgaatgggaaaatcagcaac 43016

Query: 2822 gactccttcagacattggaaactatcacaaataaactgaaaaggactctcaacaaagacc 2881
|||||
Sbjct: 43015 gactccttcagacattggaaactatcacaaataaactgaaaaggactctcaacaaagacc 42956

Query: 2882 ccatgtattcctttcagcttgcacagaaatacttatagccgacagcaattcattagaaa 2941
|||||
Sbjct: 42955 ccatgtattcctttcagcttgcacagaaatacttatagccgacagcaattcattagaaa 42896

Query: 2942 caaaaaaggcttcccccttctgcagaccaggctcagtgctgagagggcgatatgtgtg 2998
|||||
Sbjct: 42895 caaaaaaggcttcccccttctgcagaccaggctcagtgctgagagggcgatatgtgtg 42839

Score = 406 bits (205), Expect = e-110
Identities = 205/205 (100%)
Strand = Plus / Minus

Query: 4259 cagaacagtctacaggctttaacctggattttgaagtttctggcatctatggatatgtca 4318
|||||
Sbjct: 17516 cagaacagtctacaggctttaacctggattttgaagtttctggcatctatggatatgtca 17457

Query: 4319 tgctagatggcatgctcccatctctccatgctctaacctgtaccttctggatgaaatcct 4378
|||||
Sbjct: 17456 tgctagatggcatgctcccatctctccatgctctaacctgtaccttctggatgaaatcct 17397

Query: 4379 ctgacgacatgaactatggaacaccaatctcctatgcagttgataacggcagcgacaata 4438
|||||
Sbjct: 17396 ctgacgacatgaactatggaacaccaatctcctatgcagttgataacggcagcgacaata 17337

Query: 4439 ccttgctcctgactgattataacgg 4463
|||||
Sbjct: 17336 ccttgctcctgactgattataacgg 17312

Score = 404 bits (204), Expect = e-109
Identities = 204/204 (100%)
Strand = Plus / Minus

Query: 3900 aggcctgcattgtgaaacagaagtcaatgaatgccagtcaaaccatgcttaaataatgc 3959
|||||

Sbjct: 21737 aggcctgcattgtgaaacagaagtcaatgaatgccagtcaaaccatgcttaaataatgc 21678

Query: 3960 agtctgtgaagaccaggttgggggattcttgtgcaaatgccacctggatttttgggtac 4019
|||||

Sbjct: 21677 agtctgtgaagaccaggttgggggattcttgtgcaaatgccacctggatttttgggtac 21618

Query: 4020 ccgatgtggaaagaacgtcgatgagtgctcagtcagccatgcaaaaatggagctacctg 4079
|||||

Sbjct: 21617 ccgatgtggaaagaacgtcgatgagtgctcagtcagccatgcaaaaatggagctacctg 21558

Query: 4080 taaagacggtgccaatagcttcag 4103
|||||

Sbjct: 21557 taaagacggtgccaatagcttcag 21534

Score = 394 bits (199), Expect = e-106
Identities = 199/199 (100%)
Strand = Plus / Minus

Query: 1483 gagcgccactgttccacctttcagatgcccagaatgtcatcatatccccccacaactgt 1542
|||||

Sbjct: 70714 gagcgccactgttccacctttcagatgcccagaatgtcatcatatccccccacaactgt 70655

Query: 1543 ggcaagcagccagccaaaatttgggacgatctgctatgtaagttgccgccaagggttcatt 1602
|||||

Sbjct: 70654 ggcaagcagccagccaaaatttgggacgatctgctatgtaagttgccgccaagggttcatt 70595

Query: 1603 ttatctggagtcaaagaaatgctgagatgtaccacttctggaaaatggaatgtcggagtt 1662
|||||

Sbjct: 70594 ttatctggagtcaaagaaatgctgagatgtaccacttctggaaaatggaatgtcggagtt 70535

Query: 1663 caggcagctgtgtgtaaag 1681
|||||

Sbjct: 70534 caggcagctgtgtgtaaag 70516

Score = 391 bits (197), Expect = e-105
Identities = 197/197 (100%)
Strand = Plus / Minus

Query: 2169 aggttctccctgtgaaattccattcacacctgtaaatggggattttatatgcactccaga 2228
|||||

Sbjct: 52913 aggttctccctgtgaaattccattcacacctgtaaatggggattttatatgcactccaga 52854

Query: 2229 taatactggagtgcaactgtacattaacttgcttggagggtatgatttcacagaaggggc 2288
|||||

Sbjct: 52853 taatactggagtgcaactgtacattaacttgcttggagggtatgatttcacagaaggggc 52794

Query: 2289 tactgacaagtattattgtgcttatgaagatggcgctctggaaaccaacatataccactga 2348
|||||

Sbjct: 52793 tactgacaagtattattgtgcttatgaagatggcgctctggaaaccaacatataccactga 52734

Query: 2349 atggccagactgtgcca 2365
|||||

Sbjct: 52733 atggccagactgtgcca 52717

Score = 361 bits (182), Expect = 3e-96
Identities = 182/182 (100%)
Strand = Plus / Minus

Query: 1302 agtaagaacatgtcctcatctccgccagccgaaacatggccacatcagctgttctacaag 1361
|||||

Sbjct: 74694 agtaagaacatgtcctcatctccgccagccgaaacatggccacatcagctgttctacaag 74635

Query: 1362 ggaaatggtatataagacaacatgtttggttgctgtgatgaagggtagactagaagg 1421
|||||

Sbjct: 74634 ggaaatggtatataagacaacatgtttggttgctgtgatgaagggtagactagaagg 74575

Query: 1422 cagtgataagcttacttgtcaaggaaacagccagtgggatgggccaagaaccccggtgtgt 1481
|||||

Sbjct: 74574 cagtgataagcttacttgtcaaggaaacagccagtgggatgggccaagaaccccggtgtgt 74515

Query: 1482 gg 1483
||

Sbjct: 74514 gg 74513

Score = 357 bits (180), Expect = 5e-95
Identities = 180/180 (100%)
Strand = Plus / Minus

Query: 1124 ttgtccactgccctgccctgaagcctcccgaataatgggtactttatccaaaacacttgca 1183
|||||
Sbjct: 84580 ttgtccactgccctgccctgaagcctcccgaataatgggtactttatccaaaacacttgca 84521

Query: 1184 acaaccacttcaatgcagcctgtgggggtccgatgtcacccctggatttgatcttgtgggaa 1243
|||||
Sbjct: 84520 acaaccacttcaatgcagcctgtgggggtccgatgtcacccctggatttgatcttgtgggaa 84461

Query: 1244 gcagcatcatcttatgtctacccaatgggttgggtccgggttcagagagctactgcagag 1303
|||||
Sbjct: 84460 gcagcatcatcttatgtctacccaatgggttgggtccgggttcagagagctactgcagag 84401

Score = 355 bits (179), Expect = 2e-94
Identities = 179/179 (100%)
Strand = Plus / Minus

Query: 4463 gctgggttctttatgtgaatggcagggaaaagataacaaactgtccctcggatgaatgatg 4522
|||||
Sbjct: 15196 gctgggttctttatgtgaatggcagggaaaagataacaaactgtccctcggatgaatgatg 15137

Query: 4523 gcagatggcatcatattgcaatcacttggacaagtgccaatggcatctggaaagtctata 4582
|||||
Sbjct: 15136 gcagatggcatcatattgcaatcacttggacaagtgccaatggcatctggaaagtctata 15077

Query: 4583 tcgatgggaaattatctgacgggtggtgctggcctctctgttgggtttgccatacctggt 4641
|||||
Sbjct: 15076 tcgatgggaaattatctgacgggtggtgctggcctctctgttgggtttgccatacctggt 15018

Score = 355 bits (179), Expect = 2e-94
Identities = 179/179 (100%)
Strand = Plus / Minus

Query: 786 agatctaccttctgggagttttattcaagatgatatgggtccactgctcatatctttgtga 845
|||||
Sbjct: 117768 agatctaccttctgggagttttattcaagatgatatgggtccactgctcatatctttgtga 117709

Query: 846 tgaaggcaaggactgctgtgaccgaatgggaagctgcaaagtgggacacacacaggcca 905
|||||
Sbjct: 117708 tgaaggcaaggactgctgtgaccgaatgggaagctgcaaagtgggacacacacaggcca 117649

Query: 906 ttttgagtgcacatctgtgaaaaggggtattacgggaaaggtctgcagtatgaatgcacag 964
|||||
Sbjct: 117648 ttttgagtgcacatctgtgaaaaggggtattacgggaaaggtctgcagtatgaatgcacag 117590

Score = 345 bits (174), Expect = 2e-91
Identities = 174/174 (100%)
Strand = Plus / Minus

Query: 5060 gcattagctgtggggtgccacctcctttggagaatggcttcattcagccgatgacttct 5119
|||||
Sbjct: 4110 gcattagctgtggggtgccacctcctttggagaatggcttcattcagccgatgacttct 4051

Query: 5120 atgctggcagcacagtaacctaccagtgcacaatggctactatctattgggtgactcaa 5179
|||||
Sbjct: 4050 atgctggcagcacagtaacctaccagtgcacaatggctactatctattgggtgactcaa 3991

Query: 5180 ggatgttctgtacagataatgggagctggaacggcggttcaccatcctgccttg 5233
|||||
Sbjct: 3990 ggatgttctgtacagataatgggagctggaacggcggttcaccatcctgccttg 3937

Score = 343 bits (173), Expect = 7e-91
Identities = 173/173 (100%)
Strand = Plus / Minus

Query: 4888 gattgcccacgcttaggaggggtcagtgccctcatctgagaactgcatctgaagatttaaag 4947
|||||
Sbjct: 5982 gattgcccacgcttaggaggggtcagtgccctcatctgagaactgcatctgaagatttaaag 5923

Query: 4948 ccaggttccaaagtcaatctgttctgtgatccaggcttcagctgggtcggaaccctgtg 5007
|||||
Sbjct: 5922 ccaggttccaaagtcaatctgttctgtgatccaggcttcagctgggtcggaaccctgtg 5863

Query: 5008 cagtactgtctgaatcaaggacagtggacacaaccacttcctcactgtgaacg 5060
|||||
Sbjct: 5862 cagtactgtctgaatcaaggacagtggacacaaccacttcctcactgtgaacg 5810

Score = 339 bits (171), Expect = 1e-89
Identities = 174/175 (99%)
Strand = Plus / Minus

Query: 5352 agaacctataaaatgtaagggtccaggaaatccggaaaatggccactcctcaggtgagat 5411
|||||
Sbjct: 1927 agaacctataaaatgtaagggtccaggaaatccggaaaatggccactcctcaggtgagat 1868

Query: 5412 ttatacagtaggtgccgcagtcacattttcgtgtcaggaaggataaccagttgatgggagt 5471
|||||
Sbjct: 1867 ttatacagtaggtgccgaagtcacattttcgtgtcaggaaggataaccagttgatgggagt 1808

Query: 5472 aacccaaatcacatgtttggagtctggagaatggaatcatctaataccatattgt 5526
|||||
Sbjct: 1807 aacccaaatcacatgtttggagtctggagaatggaatcatctaataccatattgt 1753

Score = 329 bits (166), Expect = 1e-86
Identities = 166/166 (100%)
Strand = Plus / Minus

Query: 3321 agttccttgtccagaaggaaaaattctcgcggttctgggttaatgccctgtcacccatgtcc 3380
|||||
Sbjct: 30590 agttccttgtccagaaggaaaaattctcgcggttctgggttaatgccctgtcacccatgtcc 30531

Query: 3381 tcgtgactattaccaacctaatgcaggaaggccttctgcctggcctgtcccttttatgg 3440
|||||
Sbjct: 30530 tcgtgactattaccaacctaatgcaggaaggccttctgcctggcctgtcccttttatgg 30471

Query: 3441 aactaccccatctcgctgggtccagatccatcacagaatgttcaagt 3486
|||||
Sbjct: 30470 aactaccccatctcgctgggtccagatccatcacagaatgttcaagt 30425

Score = 329 bits (166), Expect = 1e-86
Identities = 166/166 (100%)
Strand = Plus / Minus

Query: 2599 ggaccaggtggctgggggtgcagctaataaggctggattactcttacgatgacttcctggac 2658
|||||
Sbjct: 43799 ggaccaggtggctgggggtgcagctaataaggctggattactcttacgatgacttcctggac 43740

Query: 2659 actgtgcaagaaacagccacaagcatcggaatgccaagtcctcacggattaaaagaagt 2718
|||||
Sbjct: 43739 actgtgcaagaaacagccacaagcatcggaatgccaagtcctcacggattaaaagaagt 43680

Query: 2719 gccccattatctgactataaaaattaagttaatttttaacatcacag 2764
|||||
Sbjct: 43679 gccccattatctgactataaaaattaagttaatttttaacatcacag 43634

Score = 325 bits (164), Expect = 2e-85
Identities = 164/164 (100%)
Strand = Plus / Minus

Query: 960 cacagcttgcccatcggggacatacaaacctgaaggctcaccaggaggaatcagcagttg 1019
|||||

Sbjct: 85586 cacagcttgcccatcggggacatacaaacctgaaggctcaccaggaggaatcagcagttg 85527

Query: 1020 cattccatgtcctgatgaaaatcacacctctccacctggaagcacatcccctgaagactg 1079
|||||

Sbjct: 85526 cattccatgtcctgatgaaaatcacacctctccacctggaagcacatcccctgaagactg 85467

Query: 1080 tgtctgcagagaggggatacagggcatctggccagacctgtgaac 1123
|||||

Sbjct: 85466 tgtctgcagagaggggatacagggcatctggccagacctgtgaac 85423

Score = 325 bits (164), Expect = 2e-85
Identities = 164/164 (100%)
Strand = Plus / Minus

Query: 3159 agctcagtgtaaacaaggcacctactcatcacagtggacttgagacttgatgaatcgtgtcc 3218
|||||

Sbjct: 37503 agctcagtgtaaacaaggcacctactcatcacagtggacttgagacttgatgaatcgtgtcc 37444

Query: 3219 actgggcacttatcagccaaaatttggttcccgagctgcctctcgtgtccagaaaacac 3278
|||||

Sbjct: 37443 actgggcacttatcagccaaaatttggttcccgagctgcctctcgtgtccagaaaacac 37384

Query: 3279 ctcaactgtgaaaagaggagccgtgaacatttctgcatgtggag 3322
|||||

Sbjct: 37383 ctcaactgtgaaaagaggagccgtgaacatttctgcatgtggag 37340

Score = 323 bits (163), Expect = 7e-85
Identities = 163/163 (100%)
Strand = Plus / Minus

Query: 2998 gtcaattgccctttgggaacctattataatctggaacatttcacctgtgaaagctgccgg 3057
|||||

Sbjct: 40577 gtcaattgccctttgggaacctattataatctggaacatttcacctgtgaaagctgccgg 40518

Query: 3058 atcggatcctatcaagatgaagaagggaacttgagtgcagctttgcccctctgggatg 3117
|||||

Sbjct: 40517 atcggatcctatcaagatgaagaagggaacttgagtgcagctttgcccctctgggatg 40458

Query: 3118 tacacggaatatatccattcaagaaacatctctgattgttaaag 3160
|||||
Sbjct: 40457 tacacggaatatatccattcaagaaacatctctgattgttaaag 40415

Score = 315 bits (159), Expect = 2e-82
Identities = 162/163 (99%)
Strand = Plus / Minus

Query: 4099 ttcagatgcctgtgtgcagctggcttcacaggatcacactgtgaattgaacatcaatgaa 4158
|||||
Sbjct: 18537 ttcagatgcctgtgtgcagctggcttcacaggatcacactgtgaattgaacatcaatgaa 18478

Query: 4159 tgtcagtctaataccatgtagaaatcaggccacctgtgtggatgaattaaattcatacagt 4218
|||||
Sbjct: 18477 tgtcagtctaataccatgtagaaatcaggccacctgtgtggatgaattaaattcatacagt 18418

Query: 4219 tgtaaattgtcagccaggatttttcaggccaaagggtgtgaaacag 4261
|||||
Sbjct: 18417 tgtaaattgtcagccaggatttttcaggccaaagggtgtgaaacag 18375

Score = 272 bits (137), Expect = 2e-69
Identities = 137/137 (100%)
Strand = Plus / Minus

Query: 2036 caggggctgaattgggtcattaccagaagtcatacacaggagaccttttccctcaagggg 2095
|||||
Sbjct: 53970 caggggctgaattgggtcattaccagaagtcatacacaggagaccttttccctcaagggg 53911

Query: 2096 agactatagtagtatacagccactgacccctcaggcaataacaggacatgtgatatcc 2155
|||||
Sbjct: 53910 agactatagtagtatacagccactgacccctcaggcaataacaggacatgtgatatcc 53851

Query: 2156 atattgtcataaaagggt 2172
|||||
Sbjct: 53850 atattgtcataaaagggt 53834

Score = 262 bits (132), Expect = 2e-66
Identities = 132/132 (100%)
Strand = Plus / Minus

Query: 1799 aggtgtcagtcacggtcatccagctttcacccaccttaccttttcccaattggagatg 1858
|||||
Sbjct: 61256 aggtgtcagtcacggtcatccagctttcacccaccttaccttttcccaattggagatg 61197

Query: 1859 ttgctatcgtatacacggcaactgacctatccggcaaccaggccagctgcattttccata 1918
|||||
Sbjct: 61196 ttgctatcgtatacacggcaactgacctatccggcaaccaggccagctgcattttccata 61137

Query: 1919 tcaagggttattg 1930
|||||
Sbjct: 61136 tcaagggttattg 61125

Score = 254 bits (128), Expect = 5e-64
Identities = 128/128 (100%)
Strand = Plus / Minus

Query: 4639 ggtggtggtgcgttagttctggtgggcaagagcaagacaaaaaggagagggattcagccca 4698
|||||
Sbjct: 7980 ggtggtggtgcgttagttctggtgggcaagagcaagacaaaaaggagagggattcagccca 7921

Query: 4699 gctgagtcctttgtgggctccataagccagctcaacctctgggactatgtcctgtctcca 4758
|||||
Sbjct: 7920 gctgagtcctttgtgggctccataagccagctcaacctctgggactatgtcctgtctcca 7861

Query: 4759 cagcaggt 4766
|||||
Sbjct: 7860 cagcaggt 7853

Score = 252 bits (127), Expect = 2e-63
Identities = 127/127 (100%)
Strand = Plus / Minus

Query: 4762 caggtgaagtcactggctacctcctgccagaggaactcagtaaaggaaacgtgtagca 4821
|||||
Sbjct: 6842 caggtgaagtcactggctacctcctgccagaggaactcagtaaaggaaacgtgtagca 6783

Query: 4822 tggcctgatttcttgtcaggaattgtggggaaagtgaagatcgattctaagagcatattt 4881
|||||
Sbjct: 6782 tggcctgatttcttgtcaggaattgtggggaaagtgaagatcgattctaagagcatattt 6723

Query: 4882 tgttctg 4888
|||||
Sbjct: 6722 tgttctg 6716

Score = 246 bits (124), Expect = 1e-61
Identities = 124/124 (100%)
Strand = Plus / Minus

Query: 2366 aaaaacgtttttgcaaaccacgggttcaagtcctttgagatgttctacaaagcagctcggt 2425
|||||
Sbjct: 51231 aaaaacgtttttgcaaaccacgggttcaagtcctttgagatgttctacaaagcagctcggt 51172

Query: 2426 gtgatgacacagatctgatgaagaagttttctgaagcatttgagacgaccctgggaaaaa 2485
|||||
Sbjct: 51171 gtgatgacacagatctgatgaagaagttttctgaagcatttgagacgaccctgggaaaaa 51112

Query: 2486 tgggt 2489
||||
Sbjct: 51111 tgggt 51108

Score = 244 bits (123), Expect = 5e-61
Identities = 123/123 (100%)
Strand = Plus / Minus

Query: 1680 agacgtggaggctcctcaaatcaactgtcctaaggacatagaggctaagactctggaaca 1739
|||||
Sbjct: 68410 agacgtggaggctcctcaaatcaactgtcctaaggacatagaggctaagactctggaaca 68351

Query: 1740 gcaagattctgccaatgttacctggcagattccaacagctaaagacaactctggtgaaaa 1799
|||||
Sbjct: 68350 gcaagattctgccaatgttacctggcagattccaacagctaaagacaactctggtgaaaa 68291

Query: 1800 ggt 1802
|||
Sbjct: 68290 ggt 68288

Score = 240 bits (121), Expect = 8e-60
Identities = 121/121 (100%)
Strand = Plus / Minus

Query: 5233 gatgtcgatgagtgtgcagttggatcagattgtagtgagcatgcttcttgacctgaacgta 5292
|||||
Sbjct: 3510 gatgtcgatgagtgtgcagttggatcagattgtagtgagcatgcttcttgacctgaacgta 3451

Query: 5293 gatggatcctacatatgttcatgtgtcccaccgtacacaggagatgggaaaaaactgtgca 5352
|||||
Sbjct: 3450 gatggatcctacatatgttcatgtgtcccaccgtacacaggagatgggaaaaaactgtgca 3391

Query: 5353 g 5353
|
Sbjct: 3390 g 3390

Score = 234 bits (118), Expect = 5e-58
Identities = 118/118 (100%)
Strand = Plus / Minus

Query: 3672 aggcttaaagtgtgaaacagacatcgatgagtgcagcccactgccttgccctcaacaatgg 3731
|||||
Sbjct: 27180 aggcttaaagtgtgaaacagacatcgatgagtgcagcccactgccttgccctcaacaatgg 27121

Query: 3732 agtttgtaaagacctagttggggaattcatttgtgagtgcccatcagggttacacaggt 3789
|||||
Sbjct: 27120 agtttgtaaagacctagttggggaattcatttgtgagtgcccatcagggttacacaggt 27063

Score = 234 bits (118), Expect = 5e-58
Identities = 118/118 (100%)
Strand = Plus / Minus

Query: 3785 caggtcagcgggtgtgaagaaaatataaatgagtgtagctccagtccttggttaaataaag 3844
|||||
Sbjct: 22880 caggtcagcgggtgtgaagaaaatataaatgagtgtagctccagtccttggttaaataaag 22821

Query: 3845 gaatctgtgttgatgggtgtggctggctatcgttgcacatgtgtgaaaggattttagg 3902
|||||
Sbjct: 22820 gaatctgtgttgatgggtgtggctggctatcgttgcacatgtgtgaaaggattttagg 22763

Score = 226 bits (114), Expect = 1e-55
Identities = 114/114 (100%)
Strand = Plus / Minus

Query: 2487 ggtcccatcattttgtagtgatgcagaggacattgactgcagactggaggagaaacctgac 2546
|||||
Sbjct: 47791 ggtcccatcattttgtagtgatgcagaggacattgactgcagactggaggagaaacctgac 47732

Query: 2547 caaaaaatattgcctagaatataattatgactatgaaaatggctttgcaattgg 2600
|||||
Sbjct: 47731 caaaaaatattgcctagaatataattatgactatgaaaatggctttgcaattgg 47678

Score = 218 bits (110), Expect = 3e-53
Identities = 110/110 (100%)
Strand = Plus / Minus

Query: 1930 gatgcagaaccacctgtcatagactgggtgcagatctccacctcccgtccagggtctcggag 1989
|||||
Sbjct: 55169 gatgcagaaccacctgtcatagactgggtgcagatctccacctcccgtccagggtctcggag 55110

Query: 1990 aaggtacatgccgcaagctgggatgagcctcagttctcagacaactcagg 2039
|||||
Sbjct: 55109 aaggtacatgccgcaagctgggatgagcctcagttctcagacaactcagg 55060

Score = 198 bits (100), Expect = 3e-47
Identities = 100/100 (100%)
Strand = Plus / Minus

Query: 3575 aggttttccatgaatgcttctttaacccttgccacaatagtggaacctgccagcaacttg 3634
|||||
Sbjct: 28829 aggttttccatgaatgcttctttaacccttgccacaatagtggaacctgccagcaacttg 28770

Query: 3635 ggcgtgggttatgtttgtctctgtccacttggatatacagg 3674
|||||
Sbjct: 28769 ggcgtgggttatgtttgtctctgtccacttggatatacagg 28730

Score = 184 bits (93), Expect = 4e-43
Identities = 93/93 (100%)
Strand = Plus / Minus

Query: 3485 gtttttagttcaactttctcagcggcagaggaaagtgtggtgccccctgcctctcttggac 3544
|||||
Sbjct: 30037 gtttttagttcaactttctcagcggcagaggaaagtgtggtgccccctgcctctcttggac 29978

Query: 3545 atattaaaaagaggcatgaaatcagcagtcagg 3577
|||||
Sbjct: 29977 atattaaaaagaggcatgaaatcagcagtcagg 29945

>AL158158.14.1.194835
Length = 194835

Score = 347 bits (175), Expect = 5e-92
Identities = 175/175 (100%)
Strand = Plus / Minus

Query: 5352 agaacctataaaatgtaaggctccaggaaatccggaaaatggccactcctcaggtgagat 5411
 |||||
Sbjct: 194762 agaacctataaaatgtaaggctccaggaaatccggaaaatggccactcctcaggtgagat 194703

Query: 5412 ttatacagtaggtgccgcagtcacattttcgtgtcaggaaggataccagttgatgggagt 5471
 |||||
Sbjct: 194702 ttatacagtaggtgccgcagtcacattttcgtgtcaggaaggataccagttgatgggagt 194643

Query: 5472 aacccaaatcacatgtttggagtctggagaatggaatcatctaataccatattgt 5526
 |||||
Sbjct: 194642 aacccaaatcacatgtttggagtctggagaatggaatcatctaataccatattgt 194588



Entrez

PubMed

Nucleotide

Protein

Genome

Structure

PMC

Taxonomy

Books

Search for

Go

Clear

Limits

Preview/Index

History

Clipboard

Details

Display

default

Show: 20

Send to

File

Get Subsequence

Features

☐ 1: AL158158. Human DNA sequenc...[gi:13559997]

Links

LOCUS AL158158 194835 bp DNA linear PRI 05-APR-2001
DEFINITION Human DNA sequence from clone RP11-427L11 on chromosome 9q31.2-32,
complete sequence.

ACCESSION AL158158
VERSION AL158158.14 GI:13559997
KEYWORDS HTG.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 194835)

AUTHORS Williams, S.

TITLE Direct Submission

JOURNAL Submitted (05-APR-2001) Sanger Centre, Hinxton, Cambridgeshire,
CB10 1SA, UK. E-mail enquiries: humquery@sanger.ac.uk Clone
requests: clonerequest@sanger.ac.uk

COMMENT On Apr 6, 2001 this sequence version replaced gi:12733508.
During sequence assembly data is compared from overlapping clones.
Where differences are found these are annotated as variations
together with a note of the overlapping clone name. Note that the
variation annotation may not be found in the sequence submission
corresponding to the overlapping clone, as we submit sequences with
only a small overlap as described above.

This sequence was finished as follows unless otherwise noted: all
regions were either double-stranded or sequenced with an alternate
chemistry or covered by high quality data (i.e., phred quality >= 30);
an attempt was made to resolve all sequencing problems, such as
compressions and repeats; all regions were covered by at least one
plasmid subclone or more than one M13 subclone; and the assembly was
confirmed by restriction digest. The following abbreviations are used to
associate primary accession numbers given in the feature table with their
source databases: Em:, EMBL; Sw:, SWISSPROT; Tr:, TREMBL; Wp:, WORMPEP;
Information on the WORMPEP database can be found at

http://www.sanger.ac.uk/Projects/C_elegans/wormpep This sequence

was generated from part of bacterial clone contigs of human chromosome 9,
constructed by the Sanger Centre Chromosome 9 Mapping Group. Further
information can be found at

<http://www.sanger.ac.uk/HGP/Chr9>

RP11-427L11 is from the library RPCI-11.2 constructed by the group of
Pieter de Jong. For further details see

<http://www.chori.org/bacpac/home.htm>

VECTOR: pBACe3.6

This sequence is the entire insert of clone RP11-427L11.

FEATURES
source Location/Qualifiers
1..194835
/organism="Homo sapiens"
/mol_type="genomic DNA"



Entrez

PubMed

Nucleotide

Protein

Genome

Structure

PMC

Taxonomy

Books

Search for

Go

Clear

Limits

Preview/Index

History

Clipboard

Details

Display

default

Show: 20

Send to

File

Get Subsequence

Features

☐ 1: AL592463. Human DNA sequenc...[gi:16555526]

Links

LOCUS AL592463 96779 bp DNA linear PRI 30-OCT-2001

DEFINITION Human DNA sequence from clone RP11-410K21 on chromosome 9, complete sequence.

ACCESSION AL592463

VERSION AL592463.10 GI:16555526

KEYWORDS HTG.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 96779)

AUTHORS Kay, M.

TITLE Direct Submission

JOURNAL Submitted (30-OCT-2001) Sanger Centre, Hinxton, Cambridgeshire, CB10 1SA, UK. E-mail enquiries: humquery@sanger.ac.uk Clone requests: clonerequest@sanger.ac.uk

COMMENT On Oct 31, 2001 this sequence version replaced gi:15131368. During sequence assembly data is compared from overlapping clones. Where differences are found these are annotated as variations together with a note of the overlapping clone name. Note that the variation annotation may not be found in the sequence submission corresponding to the overlapping clone, as we submit sequences with only a small overlap as described above. This sequence was finished as follows unless otherwise noted: all regions were either double-stranded or sequenced with an alternate chemistry or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by at least one plasmid subclone or more than one M13 subclone; and the assembly was confirmed by restriction digest. The following abbreviations are used to associate primary accession numbers given in the feature table with their source databases: Em:, EMBL; Sw:, SWISSPROT; Tr:, TREMBL; Wp:, WORMPEP; Information on the WORMPEP database can be found at http://www.sanger.ac.uk/Projects/C_elegans/wormpep This sequence was generated from part of bacterial clone contigs of human chromosome 9, constructed by the Sanger Centre Chromosome 9 Mapping Group. Further information can be found at <http://www.sanger.ac.uk/HGP/Chr9> RP11-410K21 is from the library RPCI-11.2 constructed by the group of Pieter de Jong. For further details see <http://www.chori.org/bacpac/home.htm> VECTOR: pBACe3.6

IMPORTANT: This sequence is not the entire insert of clone RP11-410K21 It may be shorter because we sequence overlapping sections only once, except for a short overlap. The true left end of clone RP11-410K21 is at 1 in this sequence. The true left end of clone RP13-461N9 is at 94780 in this sequence.



Entrez

PubMed

Nucleotide

Protein

Genome

Structure

PMC

Taxonomy

Books

Search for

Go

Clear

Limits

Preview/Index

History

Clipboard

Details

Display

Show:

Send to

Get Subsequence

Features

☐ 1: AL354982. Human DNA sequenc...[gi:16214577]

Links

LOCUS AL354982 119077 bp DNA linear PRI 16-OCT-2001

DEFINITION Human DNA sequence from clone RP11-473H13 on chromosome 9, complete sequence.

ACCESSION AL354982

VERSION AL354982.12 GI:16214577

KEYWORDS HTG.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 119077)

AUTHORS Clark, S.

TITLE Direct Submission

JOURNAL Submitted (16-OCT-2001) Sanger Centre, Hinxton, Cambridgeshire, CB10 1SA, UK. E-mail enquiries: humquery@sanger.ac.uk Clone requests: clonerequest@sanger.ac.uk

COMMENT On Oct 17, 2001 this sequence version replaced gi:15131224. During sequence assembly data is compared from overlapping clones. Where differences are found these are annotated as variations together with a note of the overlapping clone name. Note that the variation annotation may not be found in the sequence submission corresponding to the overlapping clone, as we submit sequences with only a small overlap as described above.

This sequence was finished as follows unless otherwise noted: all regions were either double-stranded or sequenced with an alternate chemistry or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by at least one plasmid subclone or more than one M13 subclone; and the assembly was confirmed by restriction digest. The following abbreviations are used to associate primary accession numbers given in the feature table with their source databases: Em:, EMBL; Sw:, SWISSPROT; Tr:, TREMBL; Wp:, WORMPEP; Information on the WORMPEP database can be found at http://www.sanger.ac.uk/Projects/C_elegans/wormpep This sequence was generated from part of bacterial clone contigs of human chromosome 9, constructed by the Sanger Centre Chromosome 9 Mapping Group. Further information can be found at <http://www.sanger.ac.uk/HGP/Chr9> RP11-473H13 is from the library RPCI-11.2 constructed by the group of Pieter de Jong. For further details see <http://www.chori.org/bacpac/home.htm>

VECTOR: pBACe3.6

IMPORTANT: This sequence is not the entire insert of clone RP11-473H13 It may be shorter because we sequence overlapping sections only once, except for a short overlap. The true left end of clone RP11-410K21 is at 117078 in this sequence. The true right end of clone RP11-427L11 is at 2000 in